



## ENCINA WASTEWATER AUTHORITY

A Public Agency

6200 Avenida Encinas  
Carlsbad, CA 92009-1095  
Telephone (760) 438-3941  
FAX (760) 438-3861 (Plant)  
(760) 431-7493 (Admin)

February 19, 1998

U.S. Environmental Protection Agency  
Permits Division  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Attention: Ms. Lauren Fondahl

**SUBJECT: 40 CFR Part 503 - 1997 Sewage Sludge Annual Report**

As required by the U.S. EPA Part 503 Regulation, attached please find the Encina Wastewater Authority's (EWA) Annual Sewage Sludge (biosolids) Report. The report contains required record keeping information compiled from January through December 1997.

Background:

The EWA is a public agency responsible for administering and operating the Encina Water Pollution Control Facility located in Carlsbad, California. The EWA provides wastewater treatment services to approximately 220,000 North San Diego County residents.

The Encina plant is a full secondary activated sludge type facility with a design capacity of 36 MGD liquid and 38 MGD solids. The additional solids capacity is needed to accommodate satellite water reclamation facilities. The current plant flow is approximately 23 MGD.

The EWA produces approximately 25,100 wet tons of biosolids per year at 17%-19% solids. At the plant, the EWA achieves Class B Pathogen Reduction and Vector Attraction Reduction through anaerobic digestion. Due to an aggressive pretreatment program and a relatively low industrial flow (approximately 4%), the EWA maintains a high quality biosolids. In fact, the EWA's biosolids meet the Table 3 - Alternate Pollutant Limits for metals as established under the Part 503 Regulation.

The EWA's biosolids management program consists of multiple contract options. For calendar year 1997, 100% of the EWA's biosolids were hauled by Wheelabrator Clean Water Systems - Bio Gro Division to agricultural fields in western Riverside and San Diego Counties, California where the biosolids are direct land applied according to the EPA Part 503 guidelines for Class B biosolids. The EWA also maintains Pima Gro Systems, Inc. (land application, Riverside and Kern Counties, California and Wellton, Arizona), and Ag Tech Company (land application -



Yuma, Arizona), as standby contractors. The EWA conducted one week trial hauling periods with both standby contractors in April 1997 and February 1997, respectively.

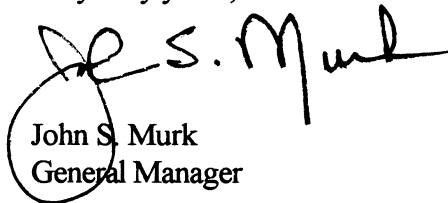
**Annual Report:**

The enclosed annual report follows the format suggested by the California Association of Sanitation Agencies (CASA). This is the same format as submitted the past four years. The format was developed as a result of discussions between CASA representatives and U.S. EPA - Region IX staff.

The report contains the following: a general information section about the EWA; biosolids quantities; pollutant concentration analyses; a description of how the pathogen reduction/vector attraction requirements are met; and a section pertaining to certification statements. In addition, back-up pollutant concentration data, Wheelabrator Bio Gro certifications, pathogen reduction/vector attraction reduction data, and EWA certification statements have been included as attachments. Although required to test on a bi-monthly basis (every 60 days), the EWA has included monthly test results for the ten "Table 3" pollutants (Section 503.13).

If you have any questions or would like additional information, please contact Paul Bushee, the EWA's Resource Reclamation Specialist, at (619) 438-3941.

Very truly yours,

  
John S. Murk  
General Manager

Enclosure

pc: Mr. Heidi Marks, Wheelabrator Bio Gro  
Mr. Kenny Evans, Ag Tech Company  
Mr. Wilson Nolan, Pima Gro Systems, Inc.  
California RWQCB - Region 9  
EPA Part 503 Regulation Annual Report File

PJB:JSM



**ENCINA WASTEWATER AUTHORITY**  
**U.S. EPA PART 503 SEWAGE SLUDGE REGULATION**  
**SEWAGE SLUDGE ANNUAL REPORT FOR 1997**

February 17, 1998

**I. GENERAL**

**1. Generator Name:**

Encina Wastewater Authority  
6200 Avenida Encinas  
Carlsbad, CA 92009

**2. Contact Person:**

Mr. Paul Bushee, Resource Reclamation Specialist

**3. Telephone:**

(619) 438-3941 ext. 3703  
(619) 431-7493 - Fax  
(619) 438-3861 - Fax

**4. Average Flow:**

Approximately 23 MGD

**5. Sludge (Biosolids) Treatment Process:**

The Encina Wastewater Authority (EWA) uses contractors to manage the biosolids generated from the treatment process. Currently, Wheelabrator Clean Water Systems - Bio Gro Division (Bio Gro) manages 100% of the biosolids. Bio Gro hauls the material to agricultural fields in Western Riverside and San Diego Counties where they are direct land applied according to the EPA's protocol for Class B biosolids. Bio Gro began hauling for the EWA in October 1994.

The EWA also maintains Pima Gro Systems, Inc. (direct land application - Kern County, California and Wellton, AZ), and Ag Tech Company (direct land application - Yuma, AZ) as standby contractors.

At the wastewater treatment plant, the EWA meets the Class B Pathogen Reduction requirements and the Vector Attraction Reduction requirements through anaerobic digestion. The EWA maintains three anaerobic digesters with a capacity of approximately two million gallons each. Currently, only two digesters are utilized with the third available as a backup.

A mix of primary and thickened secondary biosolids are fed to the digesters where the Class B and Vector Reduction requirements are met. Following digestion, the biosolids are dewatered to approximately 17%-19% solids using belt filter presses and loaded into water-tight trailers for hauling.

## **II. LAND APPLIED BIOSOLIDS**

### **1. Volume:**

From January to December 1997, a total of **22,032 wet metric tons or 4,042 dry metric tons** (24,211 wet and 4,447 dry U.S. tons respectively) of Class B biosolids were hauled by Wheelabrator Bio Gro to agricultural fields in Western Riverside and San Diego Counties for direct land application. In February 1997, **434 wet metric tons or 81 dry metric tons** (477 wet and 89 dry U.S. tons, respectively) were hauled by Ag Tech Company to its farm in Yuma, Arizona where the biosolids were direct land applied. In April 1997, **432 wet metric tons or 82 dry metric tons** (475 wet and 90 dry U.S. tons, respectively) were hauled by Pima Gro to its agricultural fields in Western Riverside County where the biosolids were direct land applied. A monthly breakdown of the biosolids quantities can be found in Attachment A.

### **2. Pollutants:**

Attachment B shows a table of the test results for the 9 pollutants identified under Subpart B - Section 503.13 for 1997. Although required to test every other month, the EWA conducts monthly metals testing. All tests are conducted by the EWA's certified laboratory. A description of the EWA's testing procedures can also be found in Attachment B.

### **Nitrogen Analyses:**

Subpart B also requires that Class B biosolids that are land applied be analyzed for nitrogen content. Under the EWA's contract with Wheelabrator Bio Gro, they have agreed to perform the nitrogen analysis. Wheelabrator Bio Gro supplies the nitrogen analyses to the EWA on a monthly basis. The monthly nitrogen data is included with the pollutant concentration data in Attachment B.

### **3. Pathogens:**

The EWA meets the Class B Pathogen Reduction and Vector Attraction Reduction requirements at the plant through anaerobic digestion (methods 503.32(b)(3) and 503.33(b)(1) respectively). A description of the EWA's Class B and Vector Attraction Reduction procedures, as well as digester data can be found in Attachment C.

**4. EWA Certification Statements:**

As per Section 503.16 - Table 5, the EWA is required to monitor its biosolids every two months. Attachment D contains copies of the all EWA certification statements from January to December 1997.

Since Wheelabrator Bio Gro land applied 100% of the Class B biosolids from the EWA during 1997, they are responsible for certifying that the management practices in Section 503.14 and the site restrictions in 503.32(b)(5) were followed. Bio Gro's certifications for the January through December 1997 period can also be found in Attachment D.

**ATTACHMENT A**

**ENCINA WASTEWATER AUTHORITY  
U.S. EPA PART 503 REGULATION  
CALCULATIONS FOR BI-MONTHLY MONITORING  
1997**

**WHEELABRATOR BIO GRO**

<u>Month/Yr.</u>	<u>U.S. Wet Tons</u>	<u>U.S. Dry Tons</u>	<u>Metric Wet Tons</u>	<u>Metric Dry Tons</u>
Jan. 1997	2,197	427	1,999	389
<u>Feb. 1997</u>	<u>1,434</u>	<u>281</u>	<u>1,305</u>	<u>256</u>
<b>Subtotal</b>	<b>3,631</b>	<b>708</b>	<b>3,304</b>	<b>645</b>
Mar. 1997	2,005	381	1,825	346
<u>Apr. 1997</u>	<u>1,578</u>	<u>290</u>	<u>1,436</u>	<u>264</u>
<b>Subtotal</b>	<b>3,583</b>	<b>671</b>	<b>3,261</b>	<b>610</b>
May 1997	2,152	387	1,958	352
<u>Jun. 1997</u>	<u>1,936</u>	<u>365</u>	<u>1,762</u>	<u>332</u>
<b>Subtotal</b>	<b>4,088</b>	<b>752</b>	<b>3,720</b>	<b>684</b>
Jul. 1997	2,245	399	2,043	359
<u>Aug. 1997</u>	<u>2,053</u>	<u>361</u>	<u>1,868</u>	<u>328</u>
<b>Subtotal</b>	<b>4,298</b>	<b>760</b>	<b>3,911</b>	<b>687</b>
Sep. 1997	2,173	398	1,977	362
<u>Oct. 1997</u>	<u>2,418</u>	<u>429</u>	<u>2,200</u>	<u>390</u>
<b>Subtotal</b>	<b>4,591</b>	<b>827</b>	<b>4,178</b>	<b>752</b>
Nov. 1997	1,915	342	1,743	311
<u>Dec. 1997</u>	<u>2,105</u>	<u>388</u>	<u>1,916</u>	<u>353</u>
<b>Subtotal</b>	<b>4,020</b>	<b>729</b>	<b>3,658</b>	<b>664</b>
<b>Year Total</b>	<b>24,211</b>	<b>4,447</b>	<b>22,032</b>	<b>4,042</b>

**U.S. EPA PART 503 REGULATION  
CALCULATIONS FOR BI-MONTHLY MONITORING  
1997**

**AG TECH COMPANY**

<b><u>Month/Yr.</u></b>	<b><u>U.S. Wet Tons</u></b>	<b><u>U.S. Dry Tons</u></b>	<b><u>Metric Wet Tons</u></b>	<b><u>Metric Dry Tons</u></b>
Feb. 1997	477	89	434	81

**PIMA GRO SYSTEMS, INC.**

<b><u>Month/Yr.</u></b>	<b><u>U.S. Wet Tons</u></b>	<b><u>U.S. Dry Tons</u></b>	<b><u>Metric Wet Tons</u></b>	<b><u>Metric Dry Tons</u></b>
Apr. 97	475	90	432	82



**ATTACHMENT B**

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**ENCINA WASTEWATER AUTHORITY  
M E M O R A N D U M**

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February 14, 1995

Ref: 9766

**TO: File**

**SUBJECT: Methodology for Determining the EPA Part 503  
Alternative Pollutant Limits for Metals**

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The purpose of this memo is to describe the Encina Wastewater Authority's methodology for testing its biosolids for the EPA Table 3 Alternative Pollutant Limits. All testing is done in accordance with the procedures prescribed in the EPA Part 503 Sewage Sludge Regulation.

Encina currently tests the biosolids on a monthly basis. Biosolids samples are taken from the conveyer belts which are downstream from the dewatering belt filter presses. The samples are taken just prior to loading into the trailers. Prior to dewatering, the biosolids spend approximately 35 to 40 days in the anaerobic digesters where the Class B Pathogen Reduction and the Vector Attraction Reduction requirements are met.

The biosolids samples tested are a composite of six grab samples taken intermittently over a two day period. Sampling usually occurs early in any given month. In addition to testing for the 10 APL metals, the biosolids are tested for total solids. All metals are digested and tested for on a wet weight basis.

The following is a summary of the testing methodologies used to test for each of the 10 APL metals.

<u>Metal</u>	<u>EPA Analysis Method</u>	<u>Digestion Method</u>
1. Arsenic	7060 (GFAA)	Method 3050
2. Cadmium	7130 (FAA)	Method 3050
3. Chromium	7190 (FAA)	Method 3050
4. Copper	7210 (FAA)	Method 3050
5. Lead	7420 (FAA)	Method 3050

<u>Metal</u>	<u>EPA Analysis Method</u>	<u>Digestion Method</u>
6. Mercury	7471 (MCVT)	Method 3050
7. Molybdenum	7481 (FAA)	Method 3050
8. Nickel	7520 (FAA)	Method 3050
9. Selenium	7740 (GFAA)	Method 3050
10. Zinc	7950 (FAA)	Method 3050

Note:      GFAA=      Graphite Furnace Atomic Absorption  
               FAA=      Flame Atomic Absorption  
               ICP=      Inductively Coupled Plasma  
               MCVT=     Manual Cold Vapor Technique  
               3050=     Digestion through Nitric Acid and Hydrogen  
                          Peroxide Solution.

PB:am

**ENCINA WASTEWATER AUTHORITY  
U.S. EPA PART 503 REGULATION  
APL METALS MONITORING - 1997**

<u>Month/Yr.</u>	<u>Arsenic</u>	<u>Cadmium</u>	<u>Copper</u>	<u>Lead</u>	<u>Mercury</u>	<u>Molybden.</u>	<u>Nickel</u>	<u>Selenium</u>	<u>Zinc</u>	<u>Nitrogen (TKN)</u>
Jan. 1997	27.30	11.63	429	55.68	2.01	20.68	43.52	0.63	1,442	6.42
Feb. 1997	28.67	11.45	396	58.84	1.75	18.55	35.68	<0.01	1,163	5.79
Mar. 1997	27.51	8.79	423	49.87	1.92	13.70	29.87	4.56	1,274	6.14
Apr. 1997	27.06	20.53	524	61.33	2.29	16.69	48.08	3.595	1,298	6.24
May 1997	28.13	9.99	452	47.59	2.60	15.63	26.48	4.65	1,344	5.58
Jun. 1997	28.58	11.67	407	58.98	2.72	17.03	33.85	3.97	1,292	5.96
Jul. 1997	29.99	9.84	367	55.27	3.53	20.96	39.61	7.65	1,168	5.82
Aug. 1997	30.82	7.34	373	58.01	2.82	19.85	30.87	2.99	1,311	6.05
Sep. 1997	29.49	6.97	363	67.11	2.62	16.20	28.47	4.82	1,473	6.59
Oct. 1997	29.72	7.44	385	66.07	1.60	16.06	30.97	6.44	1,491	6.34
Nov. 1997	30.58	6.15	365	65.84	2.54	24.46	34.95	4.17	1,232	6.62
Dec. 1997	29.23	6.98	381	51.15	1.59	23.00	36.09	7.22	1,159	6.14
<b>Average</b>	<b>28.92</b>	<b>9.90</b>	<b>405</b>	<b>58</b>	<b>2.33</b>	<b>18.57</b>	<b>34.87</b>	<b>4.22</b>	<b>1,304</b>	<b>6.14</b>

Note: All results are in Mg/Kg dry weight  
All tests, except nitrogen, done by Encina's Lab  
ND = Non Detect at 0.01 dry weight detection limit  
Nitrogen testing conducted by Wheelabrator Bio Gro (contract lab A&L Western Agricultural Laboratories)

**ATTACHMENT C**

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**ENCINA WASTEWATER AUTHORITY  
M E M O R A N D U M**

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October 14, 1993

Ref: 6773

**To: File**

**Subject: Methodology for Meeting the EPA Part 503 Regulation's  
Class B Pathogen Reduction and Vector Attraction  
Reduction Requirements**

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The EWA currently meets the Part 503 Pathogen Reduction and Vector Attraction Reduction Requirements through anaerobic digestion. Under the Part 503 Regulation, biosolids must be anaerobically digested for a period of at least 15 days, at a temperature of between 35 to 55 degrees celcius, and achieve a volatile solids reduction of at least 38% to meet these requirements.

Encina has three anaerobic digesters, Digester 4, 5, and 6, each with a capacity of 2,050,000 gallons. Currently, Digesters 5 and 6 are operational with Digester 4 available as a backup. Mixed primary and secondary biosolids are fed into the digesters at pre-determined rates in order to ensure the minimum time requirements met.

The digesters are maintained at temperatures between 35 and 36.59 degrees celsius (95 to 98 degrees fahrenheit) to ensure adequate stabilization. The digester temperature is monitored continuously and recorded three times daily. Bi-weekly samples are taken from the primary/secondary mix and analyzed for volatile solids. In addition, bi-weekly samples are taken from the anaerobically digested biosolids and analyzed for volatile solids. The results for each are then compared to determine the volatile solids reduction. The following formula is used:

$$\% \text{VS Reduction} = \frac{(\% \text{VS In} - \% \text{VS Out})}{\% \text{VS In} - \frac{(\% \text{VS In})(\% \text{VS Out})}{100}} * 100$$

The bi-weekly results are combined to form a weekly average which are further combined to find the average volatile solids reduction for the month.

**ENCINA WASTEWATER AUTHORITY  
U.S. EPA PART 503 REGULATION  
PATHOGEN/VECTOR ATTRACTION REDUCTION DATA  
1997**

<b>Digester 5</b>					<b>Digester 6</b>				
<b><u>Month/Yr.</u></b>	<b><u>Average %VS Red</u></b>	<b><u>Average Temp (F)</u></b>	<b><u>Average Temp (C)</u></b>	<b><u>Average Det Time (Days)</u></b>	<b><u>Month/Yr.</u></b>	<b><u>Average %VS Red</u></b>	<b><u>Average Temp (F)</u></b>	<b><u>Average Temp (C)</u></b>	<b><u>Average Det Time (Days)</u></b>
Jan. 1997	56.69	97.20	36.15	42.60	Jan. 1997	57.71	97.80	36.48	42.60
Feb. 1997	63.89	97.60	36.37	38.80	Feb. 1997	63.64	98.10	36.65	38.70
Mar. 1997	62.53	97.70	36.42	41.20	Mar. 1997	62.24	98.30	36.76	41.50
Apr. 1997	59.26	97.80	36.48	45.00	Apr. 1997	60.04	98.30	36.76	44.30
May 1997	57.99	97.30	36.20	34.70	May 1997	58.37	98.20	36.70	34.30
Jun. 1997	60.17	97.40	36.26	32.20	Jun. 1997	60.47	97.90	36.53	32.4
Jul. 1997	57.73	97.80	36.48	33.30	Jul. 1997	58.38	98.10	36.65	33.70
Aug. 1997	56.69	97.30	36.20	34.30	Aug. 1997	57.34	97.80	36.48	34.30
Sep. 1997	57.95	97.70	36.42	36.44	Sep. 1997	58.51	98.20	36.70	36.68
Oct. 1997	57.44	97.50	36.31	29.69	Oct. 1997	61.11	98.00	36.59	30.02
Nov. 1997	58.88	97.70	36.42	31.08	Nov. 1997	60.06	98.00	36.59	31.04
Dec. 1997	60.06	97.60	36.37	32.40	Dec. 1997	60.53	98.10	36.65	32.80
<b>Month Avg</b>	<b>59.11</b>	<b>97.55</b>	<b>36.34</b>	<b>35.98</b>	<b>Month Avg</b>	<b>59.87</b>	<b>98.07</b>	<b>36.63</b>	<b>36.03</b>

**ATTACHMENT D**



# NOTICE AND NECESSARY INFORMATION

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of sewage sludge to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.*

**Preparer Name:** Encina Wastewater Authority  
6200 Avenida Encinas  
Carlsbad, CA 92009

**Land Applier Name:** Wheelabrator Bio Gro

**Area Land Applied:** Riverside and San Diego Counties

**Land Application Period:** November 1, 1997 - December 31, 1997

**Quantity (Dry Metric Tons):** 664 (729 dry or 4,020 wet U.S. tons)

**Biosolids Type:** Cake Type (17%-20% solids)

## Part I - To Be Completed by PREPARERS of Sewage Sludge

### A. Please Provide Pollutant Concentrations

Name	Concentration (mg/kg) Dry Weight November 1997	Concentration (mg/kg) Dry Weight December 1997	Pollutant Concentrations (Table 3, 40 CFR 503.13) (monthly average)	Ceiling Concentration* (Table 1, 40 CFR 503.13) (daily maximum)
Arsenic	30.58	29.23	41 mg/kg	75 mg/kg
Cadmium	6.15	6.98	39 mg/kg	85 mg/kg
Copper	365	381	1500 mg/kg	4300 mg/kg
Lead	65.84	51.15	300 mg/kg	840 mg/kg
Mercury	2.54	1.59	17 mg/kg	57 mg/kg
Molybdenum	24.26	23.00	N/A**	75 mg/kg
Nickel	34.95	36.09	420 mg/kg	420 mg/kg
Selenium	4.17	7.22	N/A**	100 mg/kg
Zinc	1,232	1,159	2800 mg/kg	7500 mg/kg
Nitrogen	6.62	6.14	N/A	N/A

\*Sludge may not be land applied if any pollutant exceeds these values

\*\* The Table 3 limits for molybdenum and selenium have been remanded by U.S. EPA.

Note: The Table 1-4 limits for Chromium were remanded by U.S. EPA in October 1995

### B. Pathogen Reduction (40 CFR 503.32) - Please indicate the level achieved

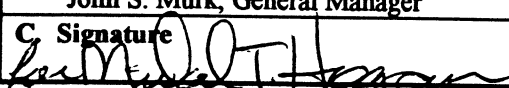
☐ Class A      ☒ Class B [Anaerobic Digestion - 40 CFR 503.32(b)(3)]

### C. Vector Attraction Reduction (40 CFR 503.33) - Please indicate level achieved

☒ Option 1      ☐ Option 2      ☐ Option 3      ☐ Option 4  
☐ Option 5      ☐ Option 6      ☐ Option 7      ☐ Option 8  
☐ No vector attraction reduction options were performed

### D. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

<b>A. Name and Official Title</b> John S. Murk, General Manager	<b>B. Area Code and Telephone Number</b> (760) 438-3941
<b>C. Signature</b> 	<b>D. Date Signed</b> 1-27-98

# ICE AND NECESSARY INFORMATION

This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of sewage sludge to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.

Preparer Name: Encina Wastewater Authority  
6200 Avenida Encinas  
Carlsbad, CA 92009

Land Applier Name: Wheelabrator Bio Gro

Area Land Applied: Riverside County

Land Application Period: September 1, 1997 - October 31, 1997

Quantity (Dry Metric Tons): 752 (827 dry or 4,178 wet U.S. tons)

Biosolids Type: Cake Type (17%-20% solids)

## Part I - To Be Completed by PREPARERS of Sewage Sludge

### A. Please Provide Pollutant Concentrations

Name	Concentration (mg/kg) Dry Weight September 1997	Concentration (mg/kg) Dry Weight October 1997	Pollutant Concentrations (Table 3, 40 CFR 503.13) (monthly average)	Ceiling Concentration* (Table 1, 40 CFR 503.13) (daily maximum)
Arsenic	29.49	29.72	41 mg/kg	75 mg/kg
Cadmium	6.97	7.44	39 mg/kg	85 mg/kg
Copper	363	385	1500 mg/kg	4300 mg/kg
Lead	67.11	66.07	300 mg/kg	840 mg/kg
Mercury	2.62	1.60	17 mg/kg	57 mg/kg
Molybdenum	16.20	16.06	N/A**	75 mg/kg
Nickel	28.47	30.97	420 mg/kg	420 mg/kg
Selenium	4.82	6.44	N/A**	100 mg/kg
Zinc	1,473	1,491	2800 mg/kg	7500 mg/kg
Nitrogen	6.34	6.59	N/A	N/A

\*Sludge may not be land applied if any pollutant exceeds these values

\*\* The Table 3 limits for molybdenum and selenium have been remanded by U.S. EPA.

Note: The Table 1-4 limits for Chromium were remanded by U.S. EPA in October 1995

### B. Pathogen Reduction (40 CFR 503.32) - Please indicate the level achieved

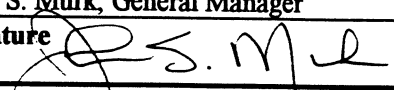
☐ Class A ☒ Class B [Anaerobic Digestion - 40 CFR.32(b)(3)]

### C. Vector Attraction Reduction (40 CFR 503.33) - Please indicate level achieved

☒ Option 1 ☐ Option 2 ☐ Option 3 ☐ Option 4  
☐ Option 5 ☐ Option 6 ☐ Option 7 ☐ Option 8  
☐ No vector attraction reduction options were performed

### D. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

A. Name and Official Title John S. Murk, General Manager	B. Area Code and Telephone Number (760) 438-3941
C. Signature 	D. Date Signed 6 Jan 1998

# N ICE AND NECESSARY INFORM ION

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of sewage sludge to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.*

**Preparer Name:** Encina Wastewater Authority  
6200 Avenida Encinas  
Carlsbad, CA 92009

**Land Applier Name:** Wheelabrator Bio Gro

**Area Land Applied:** Riverside/San Diego Counties

**Land Application Period:** July 1, 1997 - August 31, 1997

**Quantity (Dry Metric Tons):** 687 (760 dry or 4,298 wet U.S. tons)

**Biosolids Type:** Cake Type (17%-20% solids)

## Part I - To Be Completed by PREPARERS of Sewage Sludge

### A. Please Provide Pollutant Concentrations

Name	Concentration (mg/kg) Dry Weight July 1997	Concentration (mg/kg) Dry Weight August 1997	Pollutant Concentrations (Table 3, 40 CFR 503.13) (monthly average)	Ceiling Concentration* (Table 1, 40 CFR 503.13) (daily maximum)
Arsenic	29.99	30.82	41 mg/kg	75 mg/kg
Cadmium	9.84	7.34	39 mg/kg	85 mg/kg
Copper	367	373	1500 mg/kg	4300 mg/kg
Lead	55.27	58.01	300 mg/kg	840 mg/kg
Mercury	3.53	2.82	17 mg/kg	57 mg/kg
Molybdenum	20.96	19.85	N/A**	75 mg/kg
Nickel	39.61	30.87	420 mg/kg	420 mg/kg
Selenium	7.65	2.99	N/A**	100 mg/kg
Zinc	1,168	1,311	2800 mg/kg	7500 mg/kg
Nitrogen	5.82	6.05	N/A	N/A

\*Sludge may not be land applied if any pollutant exceeds these values

\*\* The Table 3 limits for molybdenum and selenium have been remanded by U.S. EPA.

Note: The Table 1-4 limits for Chromium were remanded by U.S. EPA in October 1995

### B. Pathogen Reduction (40 CFR 503.32) - Please indicate the level achieved

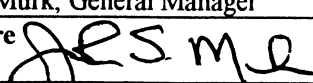
☐ Class A ☒ Class B [Anaerobic Digestion - 40 CFR.32(b)(3)]

### C. Vector Attraction Reduction (40 CFR 503.33) - Please indicate level achieved

☒ Option 1 ☐ Option 2 ☐ Option 3 ☐ Option 4  
☐ Option 5 ☐ Option 6 ☐ Option 7 ☐ Option 8  
☐ No vector attraction reduction options were performed

### D. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

<b>A. Name and Official Title</b> John S. Murk, General Manager	<b>B. Area Code and Telephone Number</b> (760) 438-3941
<b>C. Signature</b> 	<b>D. Date Signed</b> 10/10/97

## N O T I C E A N D N E C E S S A R Y I N F O R M A T I O N

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of sewage sludge to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.*

**Preparer Name:** Encina Wastewater Authority  
6200 Avenida Encinas  
Carlsbad, CA 92009

**Land Applier Name:** Wheelabrator Bio Gro

**Area Land Applied:** Riverside County

**Land Application Period:** May 1, 1997 - June 30, 1997

**Quantity (Dry Metric Tons):** 684 (752 dry or 4,088 wet U.S. tons)

**Biosolids Type:** Cake Type (18%-20% solids)

### Part I - To Be Completed by PREPARERS of Sewage Sludge

#### A. Please Provide Pollutant Concentrations

Name	Concentration (mg/kg) Dry Weight May 1997	Concentration (mg/kg) Dry Weight June 1997	Pollutant Concentrations (Table 3, 40 CFR 503.13) (monthly average)	Ceiling Concentration* (Table 1, 40 CFR 503.13) (daily maximum)
Arsenic	28.13	28.58	41 mg/kg	75 mg/kg
Cadmium	9.99	11.67	39 mg/kg	85 mg/kg
Copper	452	407	1500 mg/kg	4300 mg/kg
Lead	47.59	58.98	300 mg/kg	840 mg/kg
Mercury	2.60	2.72	17 mg/kg	57 mg/kg
Molybdenum	15.63	17.03	N/A**	75 mg/kg
Nickel	26.48	33.85	420 mg/kg	420 mg/kg
Selenium	4.65	3.97	N/A**	100 mg/kg
Zinc	1,344	1,292	2800 mg/kg	7500 mg/kg
Nitrogen	5.58	5.96	N/A	N/A

\*Sludge may not be land applied if any pollutant exceeds these values

\*\* The Table 3 limits for molybdenum and selenium have been remanded by U.S. EPA.

Note: The Table 1-4 limits for Chromium were remanded by U.S. EPA in October 1995

#### B. Pathogen Reduction (40 CFR 503.32) - Please indicate the level achieved

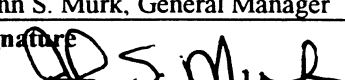
☐ Class A      ☒ Class B [Anaerobic Digestion - 40 CFR.32(b)(3)]

#### C. Vector Attraction Reduction (40 CFR 503.33) - Please indicate level achieved

☒ Option 1      ☐ Option 2      ☐ Option 3      ☐ Option 4  
☐ Option 5      ☐ Option 6      ☐ Option 7      ☐ Option 8  
☐ No vector attraction reduction options were performed

#### D. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

<b>A. Name and Official Title</b> John S. Murk, General Manager	<b>B. Area Code and Telephone Number</b> (760) 438-3941
<b>C. Signature</b> 	<b>D. Date Signed</b> 10/10/97

# NOTICE AND NECESSARY INFORMATION

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of sewage sludge to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.*

**Preparer Name:** Encina Wastewater Authority  
6200 Avenida Encinas  
Carlsbad, CA 92009

**Land Applier Name:** Wheelabrator Bio Gro

**Area Land Applied:** Riverside County

**Land Application Period:** March 1, 1997 - April 30, 1997

**Quantity (Dry Metric Tons):** 610 (708 dry or 3,583 wet U.S. tons)

**Biosolids Type:** Cake Type (18%-20% solids)

## Part I - To Be Completed by PREPARERS of Sewage Sludge

### A. Please Provide Pollutant Concentrations

Name	Concentration (mg/kg) Dry Weight March 1997	Concentration (mg/kg) Dry Weight April 1997	Pollutant Concentrations (Table 3, 40 CFR 503.13) (monthly average)	Ceiling Concentration* (Table 1, 40 CFR 503.13) (daily maximum)
Arsenic	27.51	27.06	41 mg/kg	75 mg/kg
Cadmium	8.79	20.53	39 mg/kg	85 mg/kg
Copper	423	524	1500 mg/kg	4300 mg/kg
Lead	49.87	61.33	300 mg/kg	840 mg/kg
Mercury	1.92	2.29	17 mg/kg	57 mg/kg
Molybdenum	13.70	16.69	N/A**	75 mg/kg
Nickel	29.87	48.08	420 mg/kg	420 mg/kg
Selenium	4.56	3.60	N/A**	100 mg/kg
Zinc	1,274	1,298	2800 mg/kg	7500 mg/kg
Nitrogen	6.14	6.24	N/A	N/A

\*Sludge may not be land applied if any pollutant exceeds these values

\*\* The Table 3 limits for molybdenum and selenium have been remanded by U.S. EPA.

Note: The Table 1-4 limits for Chromium were remanded by U.S. EPA in October 1995

### B. Pathogen Reduction (40 CFR 503.32) - Please indicate the level achieved

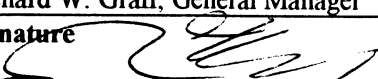
☐ Class A      ☒ Class B [Anaerobic Digestion - 40 CFR.32(b)(3)]

### C. Vector Attraction Reduction (40 CFR 503.33) - Please indicate level achieved

☒ Option 1      ☐ Option 2      ☐ Option 3      ☐ Option 4  
☐ Option 5      ☐ Option 6      ☐ Option 7      ☐ Option 8  
☐ No vector attraction reduction options were performed

### D. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

<b>A. Name and Official Title</b> Richard W. Graff, General Manager	<b>B. Area Code and Telephone Number</b> (760) 438-3941
<b>C. Signature</b> 	<b>D. Date Signed</b> 7/17/97

## N I C E AND NECESSARY INFORMATION

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of sewage sludge to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.*

**Preparer Name:** Encina Wastewater Authority  
6200 Avenida Encinas  
Carlsbad, CA 92009

**Land Applier Name:** Pima Gro Systems, Inc.

**Area Land Applied:** Riverside County

**Land Application Period:** March 1, 1997 - April 30, 1997

**Quantity (Dry Metric Tons):** 82 (90 dry or 475 wet U.S. tons)

**Biosolids Type:** Cake Type (18%-20% solids)

### Part I - To Be Completed by PREPARERS of Sewage Sludge

#### A. Please Provide Pollutant Concentrations

Name	Concentration (mg/kg) Dry Weight March 1997	Concentration (mg/kg) Dry Weight April 1997	Pollutant Concentrations (Table 3, 40 CFR 503.13) (monthly average)	Ceiling Concentration* (Table 1, 40 CFR 503.13) (daily maximum)
Arsenic	27.51	27.06	41 mg/kg	75 mg/kg
Cadmium	8.79	20.53	39 mg/kg	85 mg/kg
Copper	423	524	1500 mg/kg	4300 mg/kg
Lead	49.87	61.33	300 mg/kg	840 mg/kg
Mercury	1.92	2.29	17 mg/kg	57 mg/kg
Molybdenum	13.70	16.69	N/A**	75 mg/kg
Nickel	29.87	48.08	420 mg/kg	420 mg/kg
Selenium	4.56	3.60	N/A**	100 mg/kg
Zinc	1,274	1,298	2800 mg/kg	7500 mg/kg
Nitrogen	6.14	6.24	N/A	N/A

\*Sludge may not be land applied if any pollutant exceeds these values

\*\* The Table 3 limits for molybdenum and selenium have been remanded by U.S. EPA.

Note: The Table 1-4 limits for Chromium were remanded by U.S. EPA in October 1995

#### B. Pathogen Reduction (40 CFR 503.32) - Please indicate the level achieved

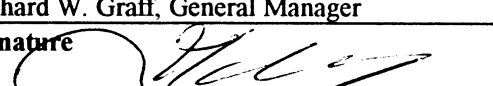
☐ Class A      ☒ Class B [Anaerobic Digestion - 40 CFR.32(b)(3)]

#### C. Vector Attraction Reduction (40 CFR 503.33) - Please indicate level achieved

☒ Option 1      ☐ Option 2      ☐ Option 3      ☐ Option 4  
☐ Option 5      ☐ Option 6      ☐ Option 7      ☐ Option 8  
☐ No vector attraction reduction options were performed

#### D. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

<b>A. Name and Official Title</b> Richard W. Graff, General Manager	<b>B. Area Code and Telephone Number</b> (760) 438-3941
<b>C. Signature</b> 	<b>D. Date Signed</b> 7/14/97

# NOTICE AND NECESSARY INFORMATION

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of sewage sludge to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.*

**Preparer Name:** Encina Wastewater Authority  
6200 Avenida Encinas  
Carlsbad, CA 92009

**Land Applier Name:** Wheelabrator Bio Gro

**Area Land Applied:** Riverside County/San Diego County

**Land Application Period:** January 1, 1997 - February 28, 1997

**Quantity (Dry Metric Tons):** 645 (708 dry or 3,631 wet U.S. tons)

**Biosolids Type:** Cake Type (18%-20% solids)

## Part I - To Be Completed by PREPARERS of Sewage Sludge

### A. Please Provide Pollutant Concentrations

Name	Concentration (mg/kg) Dry Weight January 1997	Concentration (mg/kg) Dry Weight February 1997	Pollutant Concentrations (Table 3, 40 CFR 503.13) (monthly average)	Ceiling Concentration* (Table 1, 40 CFR 503.13) (daily maximum)
Arsenic	27.30	28.67	41 mg/kg	75 mg/kg
Cadmium	11.63	11.45	39 mg/kg	85 mg/kg
Copper	429	396	1500 mg/kg	4300 mg/kg
Lead	56	59	300 mg/kg	840 mg/kg
Mercury	2.01	1.75	17 mg/kg	57 mg/kg
Molybdenum	20.68	18.55	N/A**	75 mg/kg
Nickel	43.52	35.68	420 mg/kg	420 mg/kg
Selenium	0.63	<0.01	N/A**	100 mg/kg
Zinc	1,442	1,163	2800 mg/kg	7500 mg/kg
Nitrogen	6.42	5.79	N/A	N/A

\*Sludge may not be land applied if any pollutant exceeds these values

\*\* The Table 3 limits for molybdenum and selenium have been remanded by U.S. EPA.

Note: The Table 1-4 limits for Chromium were remanded by U.S. EPA in October 1995

### B. Pathogen Reduction (40 CFR 503.32) - Please indicate the level achieved

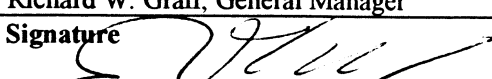
☐ Class A      ☒ Class B [Anaerobic Digestion - 40 CFR.32(b)(3)]

### C. Vector Attraction Reduction (40 CFR 503.33) - Please indicate level achieved

☒ Option 1      ☐ Option 2      ☐ Option 3      ☐ Option 4  
☐ Option 5      ☐ Option 6      ☐ Option 7      ☐ Option 8  
☐ No vector attraction reduction options were performed

### D. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

<b>A. Name and Official Title</b> Richard W. Graff, General Manager	<b>B. Area Code and Telephone Number</b> (760) 438-3941
<b>C. Signature</b> 	<b>D. Date Signed</b> 7/19/97

# N ICE AND NECESSARY INFORMATION

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of sewage sludge to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.*

**Preparer Name:** Encina Wastewater Authority  
6200 Avenida Encinas  
Carlsbad, CA 92009

**Land Applier Name:** Ag Tech Company

**Area Land Applied:** Yuma, Arizona

**Land Application Period:** January 1, 1997 - February 28, 1997

**Quantity (Dry Metric Tons):** 81 (89 U.S. dry or 477 U.S. wet tons)

**Biosolids Type:** Cake Type (18%-20% solids)

## Part I - To Be Completed by PREPARERS of Sewage Sludge

### A. Please Provide Pollutant Concentrations

Name	Concentration (mg/kg) Dry Weight January 1997	Concentration (mg/kg) Dry Weight February 1997	Pollutant Concentrations (Table 3, 40 CFR 503.13) (monthly average)	Ceiling Concentration* (Table 1, 40 CFR 503.13) (daily maximum)
Arsenic	27.30	28.67	41 mg/kg	75 mg/kg
Cadmium	11.63	11.45	39 mg/kg	85 mg/kg
Copper	429	396	1500 mg/kg	4300 mg/kg
Lead	56	59	300 mg/kg	840 mg/kg
Mercury	2.01	1.75	17 mg/kg	57 mg/kg
Molybdenum	20.68	18.55	N/A**	75 mg/kg
Nickel	43.52	35.68	420 mg/kg	420 mg/kg
Selenium	0.63	<0.01	N/A**	100 mg/kg
Zinc	1,442	1,163	2800 mg/kg	7500 mg/kg
Nitrogen	6.42	5.79	N/A	N/A

\*Sludge may not be land applied if any pollutant exceeds these values

\*\* The Table 3 limits for molybdenum and selenium have been remanded by U.S. EPA.

Note: The Table 1-4 limits for Chromium were remanded by U.S. EPA in October 1995

### B. Pathogen Reduction (40 CFR 503.32) - Please indicate the level achieved


☐ Class A ☒ Class B [Anaerobic Digestion - 40 CFR.32(b)(3)]

### C. Vector Attraction Reduction (40 CFR 503.33) - Please indicate level achieved

☒ Option 1 ☐ Option 2 ☐ Option 3 ☐ Option 4  
☐ Option 5 ☐ Option 6 ☐ Option 7 ☐ Option 8  
☐ No vector attraction reduction options were performed

### D. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

<b>A. Name and Official Title</b> Richard W. Graff, General Manager	<b>B. Area Code and Telephone Number</b> (760) 438-3941
<b>C. Signature</b> 	<b>D. Date Signed</b> 4/18/97



**WHEELABRATOR BIO GRO  
CERTIFICATION STATEMENTS**

## CERTIFICATION

"I certify, under penalty of law, that the management practices in §503.14 and the site restrictions in §503.32(b)(5) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and site restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: December 1997

Name: Daniel Domigan

Wheelabrator Water Technologies Inc.

Signature: 

Date: 2/5/98

Name: William P. Cotter

Wheelabrator Water Technologies Inc.

Signature: 

Date: 2/5/98

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR


## CERTIFICATION

"I certify, under penalty of law, that the management practices in §503.14 and the site restrictions in §503.32(b)(5) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and site restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."


Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: November 1997

Name: Daniel Domigan Wheelabrator Water Technologies Inc.

Signature:  Date: 12/29/97

Name: William P. Cotter Wheelabrator Water Technologies Inc.

Signature:  Date: 12/30/97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR

## CERTIFICATION

"I certify, under penalty of law, that the management practices in §503.14 and the site restrictions in §503.32(b)(5) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and site restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: October 1997


Name: Daniel Domigan

Wheelabrator Water Technologies Inc.

Signature:  Date: 12/15/97

Name: William Cotter

Wheelabrator Water Technologies Inc.

Signature:  Date: 12/15/97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR

## CERTIFICATION

"I certify, under penalty of law, that the management practices in §503.14 and the site restrictions in §503.32(b)(5) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and site restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: September 1997

Name: Dan Domigan

Wheelabrator Water Technologies Inc.

Signature: 

Date: 10/22/97

Name: William P. Cotter

Wheelabrator Water Technologies Inc.

Signature: 

Date: 10/23/97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR

## CERTIFICATION

"I certify, under penalty of law, that the management practices in §503.14 and the site restrictions in §503.32(b)(5) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and site restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: August 1997

Name: Dan Domigan Wheelabrator Water Technologies Inc.

Signature:  Date: 9/26/97

Name: Mark Taylor Wheelabrator Water Technologies Inc.

Signature:  Date: 9-23-97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR

## CERTIFICATION

"I certify, under penalty of law, that the management practices in §503.14 and the site restrictions in §503.32(b)(5) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and site restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: July 1997

Name: Dan Domigan

Wheelabrator Water Technologies Inc.

Signature: 

Date: 8/21/97

Name: Mark Taylor

Wheelabrator Water Technologies Inc.

Signature: 

Date: 8-28-97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR

## CERTIFICATION

"I certify, under penalty of law, that the management practices in §503.14 and the site restrictions in §503.32(b)(5) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and site restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: June 1997

Name: Dan Domigan

Wheelabrator Water Technologies Inc.

Signature: 

Date: 8/6/97

Name: Mark Taylor

Wheelabrator Water Technologies Inc.

Signature: 

Date: 8-10-97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR



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Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: May 1997

Name: Dan Domigan

Wheelabrator Water Technologies Inc.

Signature: 

Date: 6/26/97

Name: Mark Taylor

Wheelabrator Water Technologies Inc.

Signature: 

Date: 6-26-97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR

## CERTIFICATION

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Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: April 1997

Name: Dan Domigan Wheelabrator Water Technologies Inc.

Signature:  Date: 6/10/97

Name: Mark Taylor Wheelabrator Water Technologies Inc.

Signature:  Date: 6-12-97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR

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Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: March 1997

Name: Dan Domigan

Wheelabrator Water Technologies Inc.

Signature: 

Date: 4-5-97

Name: Mark Taylor

Wheelabrator Water Technologies Inc.

Signature: 

Date: 5-5-97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR

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Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: February 1997

Name: Dan Domigan

Wheelabrator Water Technologies Inc.

Signature: 

Date: 3/20/97

Name: Mark Taylor

Wheelabrator Water Technologies Inc.

Signature: 

Date: 3-20-97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR

## CERTIFICATION

"I certify, under penalty of law, that the management practices in §503.14 and the site restrictions in §503.32(b)(5) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and site restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Encina Wastewater Authority, CA Encina WPCF

Reporting Period: January 1997

Name: Dan Domigan

Wheelabrator Water Technologies Inc.

Signature: 

Date: 2/25/97

Name: Mark Taylor

Wheelabrator Water Technologies Inc.

Signature: 

Date: 3-9-97

The management practices were met as follows:

- (a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.
- (b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States) as required by state and internal operating standards.
- (d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

TYPE 6: CB T3 LA MP SR